

ANIMATED SWISH MAX MEDIA DEVELOPMENT FOR  
PREPARATION OF MECHANICAL WORKING DRAWING  
FOR YEAR X SMK STUDENTS

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ABSTRACT

The purpose of this study is to develop an animated *Swish Max* learning media to support learning drawing techniques, particularly the appointment of the size of working drawings, determine the feasibility of instructional media and instructional media performance that is expected to improve student achievement of SMK class X.

This study used the approach of research and development (Research and Development). Place of study was at SMK Negeri 1 Seyegan Sleman. The implementation of the study was in March 2011. The method used in data collection through questionnaire. The methods used to analyze data was by quantitative descriptive analysis techniques disclosed in the distribution of scores and made percent of category rating scales that had been determined. In this study also used the pseudo experiment research involving X TFL1 as a class control and class X TFL2 as a class experiment.

The results showed that the development of instructional media through several stages, namely (1) initial investigation phase of the learning device and set of teaching materials or materials to be developed in the medium, (2) the design phase to prepare the design of learning tools (syllabus, RPP), organize materials, designing instructional media, (3) the realization phase is to create and develop the initial product to be validated, (4) validation phase, testing and revision that is validated by experts of material and media, small group testing, field trials, (5) Implementation phase of the final product. From the feasibility test that developed by expert instructional media materials to obtain the percentage of the feasibility study for a total of 88.08%, according to media experts to obtain the percentage of the feasibility of a total of 91.88%, according to the percentage of teachers obtain eligibility for a total of 88.39% and results obtained from the assessment of students found the percentage viability of 86.67%. The percentage viability obtained from the test material experts, media specialists, teachers and students proved that an animated instructional media developed *Swish max* fit for use as an engineering drawing learning support.

Developed media learning can improve of study achievement with an average rating on the class of experiments pre test 4,99 and experiment of post test 7,61. It has met the minimum criteria for completeness. The using of instructional media showed a significant effectiveness as a model of learning drawing techniques and the research results showed  $t_{\text{count}}$  is greater than  $t_{\text{table}}$  ( $3.926 > 2.423$ ).